# PUBLIC NOTICE

**US Army Corps**
**Of Engineers**
Wilmington District

Issue Date: June 12, 2008
Comment Deadline: July 11, 2008
Corps Action ID #: 2008-1510

The Wilmington District, Corps of Engineers (Corps) has received an application from the City of Charlotte Storm Water Services (CSWS) seeking Department of the Army authorization to impact approximately 0.60 acre of open water, 0.53 acre of wetlands, and 177 linear feet of stream channel associated with the Wilora Lake Dam Rehabilitation project, located in Charlotte, Mecklenburg County, North Carolina.

Specific plans and location information are described below and shown on the attached plans. This Public Notice and all attached plans are also available on the Wilmington District Web Site at www.saw.usace.army.mil/wetlands.

**Applicant:**
City of Charlotte Storm Water Services
Attn: Isaac Hinson
600 East Fourth Street
Charlotte, North Carolina 28202

**AGENT (if applicable):**
Carolina Wetland Services
Attn: Paul Bright
550 E. Westinghouse Blvd.
Charlotte, North Carolina 28273

**Authority**

The Corps will evaluate this application and decide whether to issue, conditionally issue, or deny the proposed work pursuant to applicable procedures of Section 404 of the Clean Water Act (33 U.S.C. 1344).

**Location**

The Wilora Lake Rehabilitation Project is located approximately ¾ mile southeast of the Vernedale Road and North Sharon Amity Road intersection, in Charlotte, Mecklenburg County, North Carolina (35.21260°N, -80.74417°W).

**Existing Site Conditions**

The current land use for the project area is residential with maintained lawns and small adjacent wooded areas. An existing pond (known as Wilora Lake) is located on the site. Wilora Lake is a small pond that is impounded by an old masonry and earth dam. In recent years, the dam has deteriorated and the pond's water surface elevation has dropped by several feet. The drop in water surface elevation has reduced the pond's surface area to approximately 0.60 acre. Areas previously inundated by the full pond have now been exposed and wetland vegetation has emerged on the exposed pond bottom. In addition, erosion is present beneath the dam's spillway. Bare earth can be seen underneath the dam several feet behind the edge of the concrete slab. Significant bank erosion exists immediately downstream of the dam.

There are two jurisdictional stream channels (Streams A and B), one jurisdictional wetland area (Wetland AA), and one jurisdictional open water area (Pond A) located within the project area. Jurisdictional waters include unnamed tributaries to Campbell Creek. Campbell Creek is within the Catawba River basin (HU# 03050103) and is rated "Class C waters" by the NCDWQ.

Stream A is located throughout the central portion of the project area and is approximately 579 linear feet in length. This perennial channel was impounded to form Pond A and adjacent Wetland AA. Stream A exhibited average ordinary high water widths of 3 to 5 feet, perennial flow, strong groundwater flow, and substrate consisting of silt to small cobbles. Biological sampling within this channel resulted in a weak presence of benthic macro-invertebrates, fish, crayfish, and amphibians. USACE Stream Quality Assessment scores for this channel ranged from 59 to 67 out of a possible 100 points and ranged from 31.5 to 36.5 out of 71 possible points on the NCDWQ Stream Classification Form, indicating perennial status.

Wetland AA is located throughout the central portion of the project area and is approximately 1.0 acre in size. This fringe wetland area is hydrologically connected to Perennial Stream A and Pond A. Dominant vegetation within this area includes jewelweed (*Impatiens capensis*), black willow (*Salix nigra*), silky dogwood (*Cornus amomum*), tag alder (*Alnus serrulata*), and various sedges (*Carex* spp.). This area exhibited low chroma soils (2.5Y 4/1), many distinct mottles (5YR 3/3), drainage patterns, sediment deposits, and saturation within the upper 12 inches of the soil profile.

Pond A is located in the central portion of the project area and is approximately 0.60 acre in size. This open water area was formed as the result of the impoundment of Perennial Stream A.

**Applicant's Stated Purpose**

The purpose of this project is to rehabilitate the existing pond and dam to treat storm water flows entering the site. The main goals of this project are to restore most of the main pond and rehabilitate it to enhance water quality for flows exiting the pond. The rehabilitated pond will also provide limited detention to protect downstream areas from flashy urban storm flows. The rehabilitation design will follow the Charlotte-Mecklenburg Storm Water Design Manual and applicable Dam Safety regulations as stated in the North Carolina Administrative Code.

**Project Description**

The applicant has concluded that the current dam is inadequate. The dam is damaged and was not likely constructed to modern building standards. Also, at the time of construction the dam served a much less densely populated area. The other danger is that the erosion to the bottom of the dam will continue. A large storm event could further undercut the dam and drain the pond entirely. Finally, the pond is located in the McAlpine Creek watershed, which is listed on the North Carolina 303d list (2006) as impaired for fecal coliform, turbidity, and biological integrity.

A large portion of the existing watershed currently consists of wooded or low density residential land uses. It is expected that development in the watershed will continue until it has reached build-out conditions. The undeveloped areas within the watershed are currently zoned Residential 3 (R3) by the City of Charlotte. This zoning classification requires a minimum lot size of 10,000 square feet (app. ¼ acre). This predicted increase in density will result in higher runoff volumes and shorter times of concentration as compared to the existing conditions. Hydrologic modeling of the watershed predicts a 30-60% increase in inflow rates, depending on the design storm frequency and duration. Furthermore, water quality modeling predicts the following event mean pollution concentration (in mg/L) increases following build-out of the watershed: Total Suspended Solids (TSS) 7-38%, Total Nitrogen (TN)13-42%, Total Phosphorus (TP) 0%, Biochemical Oxygen Demand (BOD) 14-50%.

Permanent impacts resulting from activities associated with the pond rehabilitation total 0.39 acre of wetlands and 148 linear feet of perennial stream channel. The dam repair will result in the inundation of 0.34 acre of Wetland AA. The current pond elevation will be raised with the new permanent pond elevation being 720 feet. Grading activities associated with the dam repair will result in impacts to Perennial Stream A downstream of the dam. Approximately 51 linear feet of Perennial Stream A will be impacted and 50 linear feet of Intermittent Stream B. These downstream impacts are necessary to bring the dam up to current design standards and to provide energy dissipation for flows exiting the dam. Construction of the forebay berm will result in fill in approximately 0.05 acre of impact to Wetland AA and 47 linear feet of impact to Perennial Stream A. The forebay itself will not be excavated or filled when the dam is rehabilitated and will not result in direct impacts to Perennial Stream A. However, subsequent impacts will result from sedimentation and maintenance of the forebay which will total 0.14 acre of wetlands that will remain in the forebay and be temporarily impacted over time with maintenance. Also, approximately 30 linear feet of Stream A will be temporarily impacted immediately downstream of the dam.

To compensate for loss of jurisdictional wetlands, CSWS is proposing payment to the North Carolina Ecosystem Enhancement Program (NCEEP) in addition to the construction of an approximately 8,581 square foot littoral shelf. CSWS will purchase wetland and stream restoration credits at a 1:1 ratio for 0.394 acres of wetland and 148 linear feet of stream impacts. CSWS has already contacted the NCEEP to request the credits and determine availability. Based on preliminary information, NCEEP verified that mitigation credits are available in the 03050103 cataloging unit of the Catawba River basin.

**Other Required Authorizations**

This notice and all applicable application materials are being forwarded to the appropriate State agencies for review. The Corps will generally not make a final permit decision until the North Carolina Division of Water Quality (NCDWQ) issues, denies, or waives State certification required by Section 401 of the Clean Water Act (PL 92-500). The receipt of the application and this public notice combined with appropriate application fee at the North Carolina Division of Water Quality central office in Raleigh will constitute initial receipt of an application for a 401 Water Quality Certification. A waiver will be deemed to occur if the NCDWQ fails to act on this request for certification within sixty days of the date of the receipt of this notice in the NCDWQ Central Office. Additional information regarding the Clean Water Act certification may be reviewed at the NCDWQ Central Office, 401 Oversight and Express Permits Unit, 2321 Crabtree Boulevard, Raleigh, North Carolina 27604-2260. All persons desiring to make comments regarding the application for certification under Section 401 of the Clean Water Act should do so in writing delivered to the North Carolina Division of Water Quality (NCDWQ), 2321 Crabtree Boulevard, Raleigh, North Carolina 27604-2260 Attention: Ms Cyndi Karoly by July 11, 2008.

**Essential Fish Habitat**

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The Corps' initial determination is that the proposed project will not adversely impact EFH or associated fisheries managed by the South Atlantic or Mid Atlantic Fishery Management Councils or the National Marine Fisheries Service.

**Cultural Resources**

The Corps has consulted the latest published version of the National Register of Historic Places and is not aware that any registered properties, or properties listed as being eligible for inclusion therein are located within the project area or will be affected by the proposed work. Presently, unknown archeological, scientific, prehistoric, or historical data may be located within the project area and/or could be affected by the proposed work. A letter provided by the North Carolina State Historic Preservation Office dated February 21, 2008 verifies the Corps determination that no historic resources will be affected by this project.

**Endangered Species**

The Corps has reviewed the project area, examined all information provided by the applicant and consulted the latest North Carolina Natural Heritage Database. Based on available information, the Corps is not aware of the presence of species listed as threatened or endangered or their critical habitat formally designated pursuant to the Endangered Species Act of 1973 (ESA) within the project area. A final determination on the effects of the proposed project will be made upon additional review of the project and completion of any necessary biological assessment and/or consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service."

**Evaluation**

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values (in accordance with Executive Order 11988), land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving the discharge of dredged or fill materials in waters of the United States, the evaluation of the impact of the activity on the public interest will include application of the Environmental Protection Agency's 404(b)(1) guidelines.

**Commenting Information**

The Corps of Engineers is soliciting comments from the public; Federal, State and local agencies and officials, including any consolidate State Viewpoint or written position of the Governor; Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment (EA) and/or an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Requests for a public hearing shall be granted, unless the District Engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing.

Written comments pertinent to the proposed work, as outlined above, will be received by the Corps of Engineers, Wilmington District, until 5pm, July 11, 2008. Comments should be submitted to Amanda Jones, Asheville Regulatory Field Office, 151 Patton Avenue, Room 208, Asheville, North Carolina, 28801-5006, telephone 828-271-7980.


**Image Courtesy of the U.S. Geological Survey**

7.5 Minute Topographic Map Series, Mint Hill, North Carolina quadrangle, dated 1996.
Approximate Scale 1" = 4000'

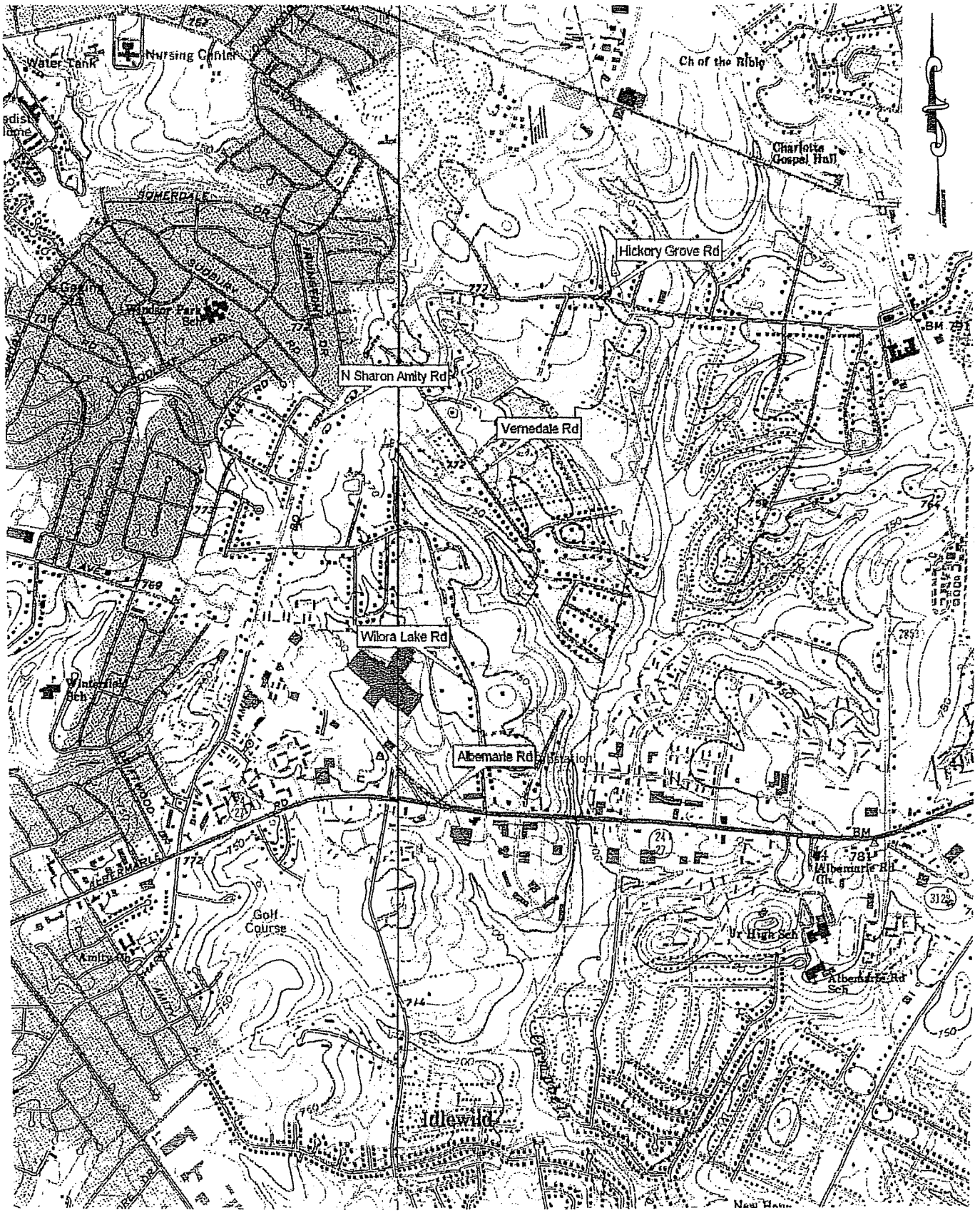
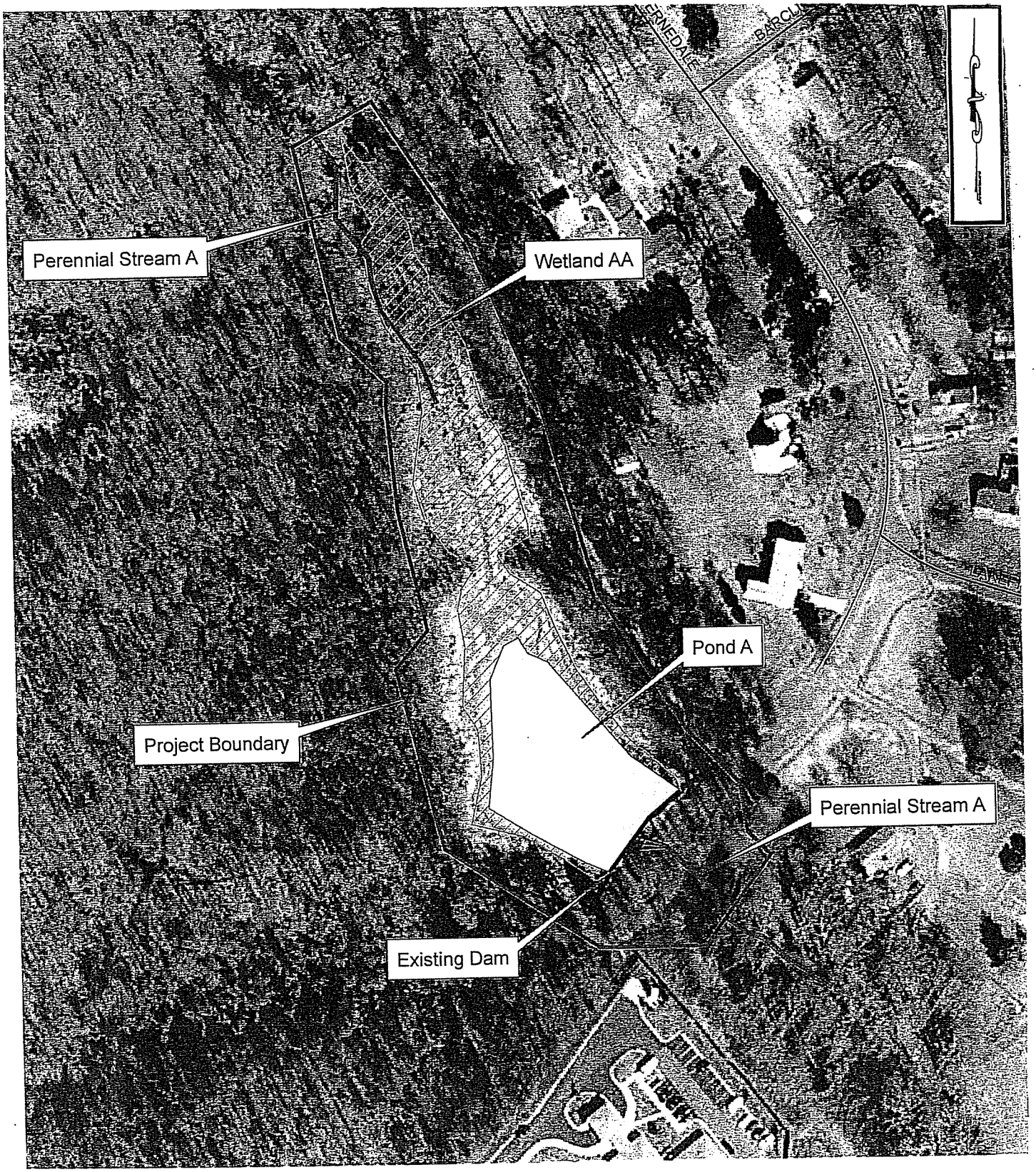


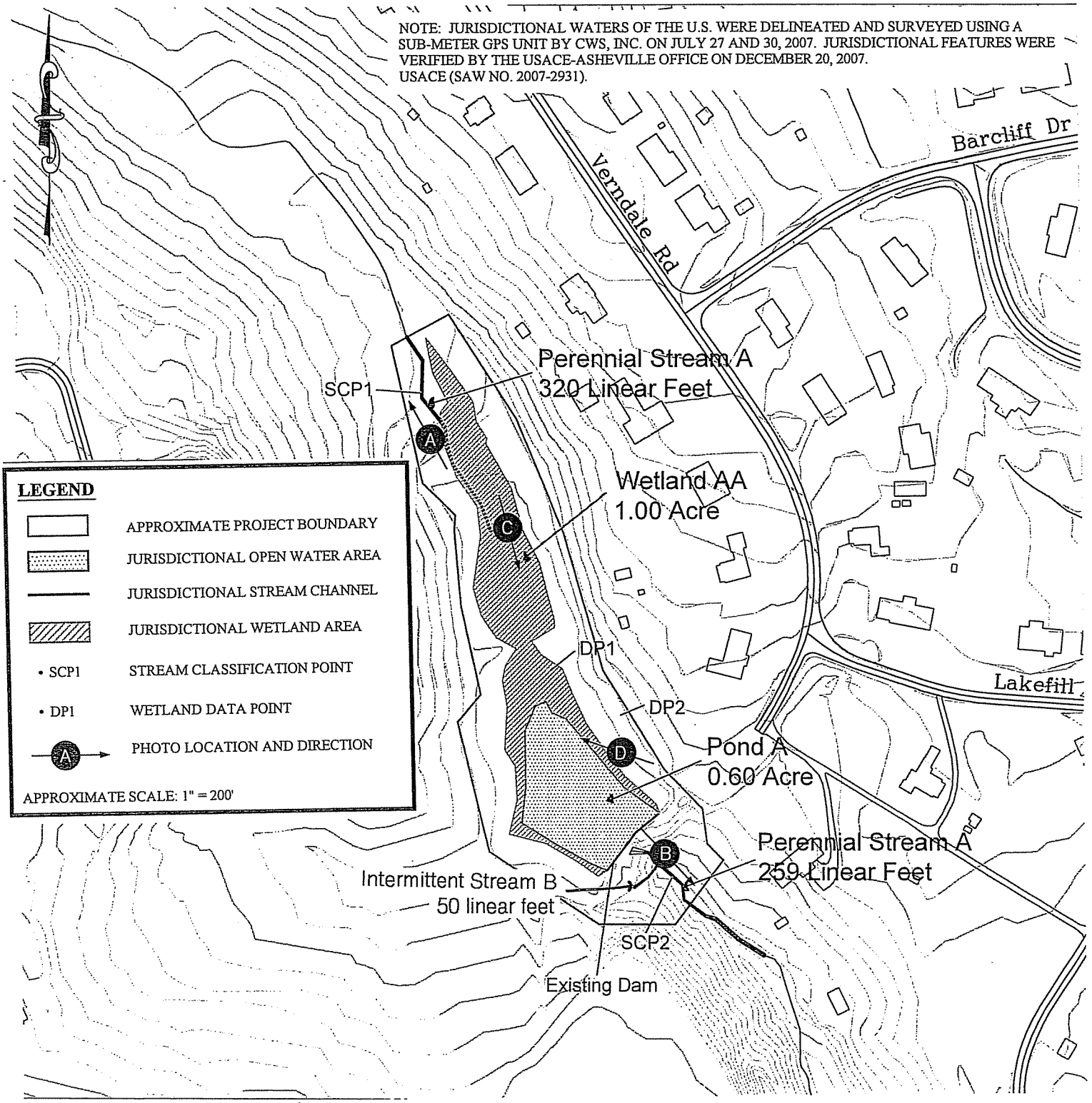

**Image Courtesy of the U.S. Geological Survey**

7.5 Minute Topographic Map Series, Mint Hill, North Carolina quadrangle, dated 1996.
Approximate Scale 1" = 2000'




**Mecklenburg County Aerial Photograph Courtesy of Mecklenburg County Land Use and Environmental Services**

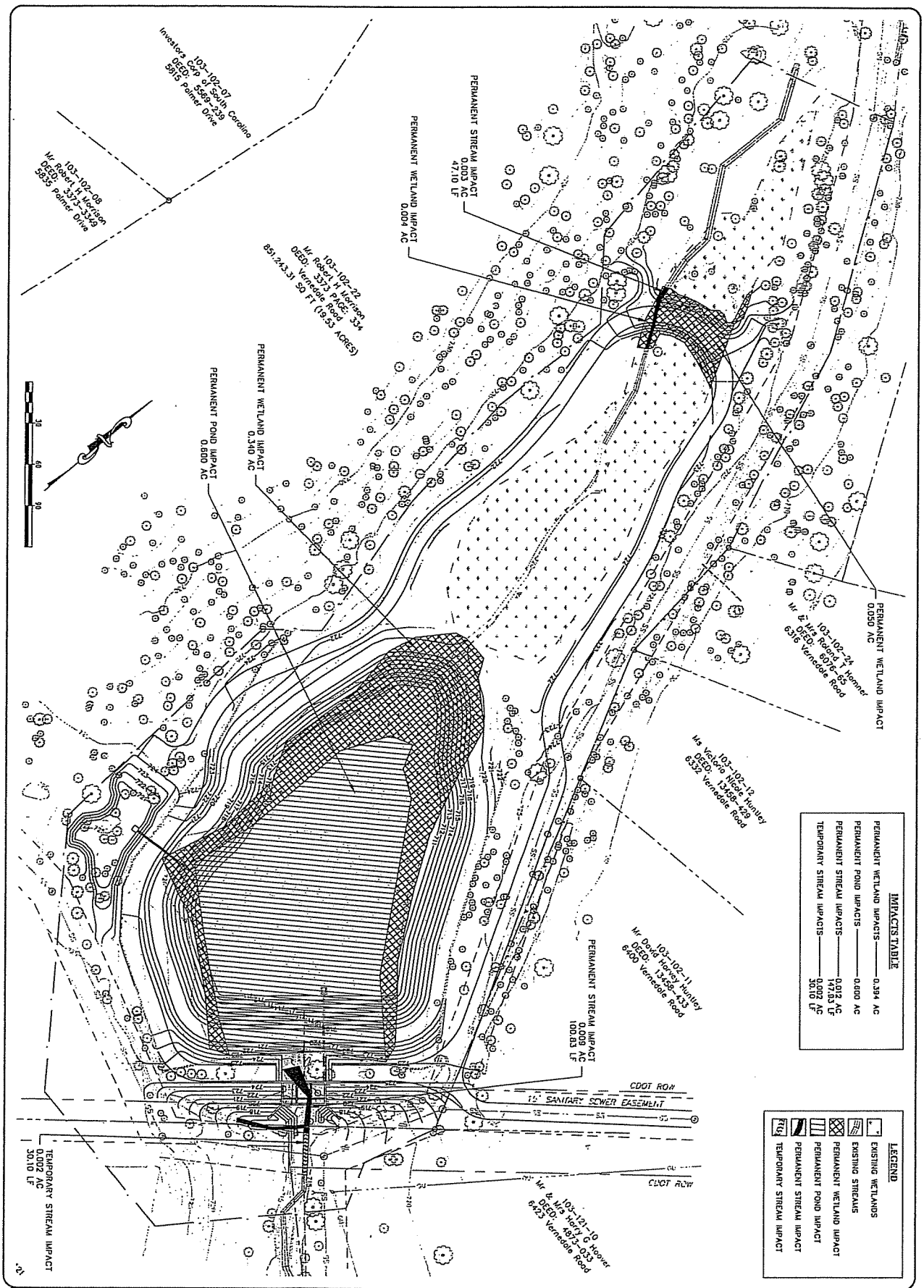
Mecklenburg County GIS layers, dated 2005.
Approximate Scale 1" = 150'




## Wetland Boundary Survey



GIS layers provided by Mecklenburg County Land Use and Environmental Services, dated 2002

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| SHEET 2 OF 2 | WILORA LAKE REHABILITATION PROJECT<br>PROPOSED IMPACTS TO JURISDICTIONAL AREAS | 123423 JOB NO. | 1"=30' SCALE | NO. | DATE | BY | DESCRIPTION | Plans Prepared By: BROWN AND CALDWELL 8410 TRINITY ROAD 919-233-9178 RALEIGH, NORTH CAROLINA | CHARLOTTE |
| | | CAD FILE PATH | | | | | | | |
| | | BN PREPARED BY | MF CHECKED BY | | | | | | |
| | | MF APPROVED BY | APRIL, 2008 DATE | | | | | | |

ALTERNATIVE 4 (PREFERRED)